



## Winnipeg SAS User Group

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## What's new in SAS 9.2

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Sylvain Tremblay

SAS Canada – Education

**THE  
POWER  
TO KNOW.**

# New release of SAS: 9.2

 SAS **GLOBAL** FORUM **2008 SAN ANTONIO TEXAS**  
March 16-19  
Warren E. Stinson, Conference Chair

## **SAS Foundation:**

BASE  
STAT

...

 SAS **GLOBAL** FORUM **2009** Washington, D.C.  
March 22-25  
Lori Griffin, Conference Chair

## **Tools & Solutions**

Enterprise Guide 4.2  
Enterprise Miner 6.1

...

# Agenda

- SAS 9.2 Key Highlights
- Proc SORT
- PDF Output
- ODS Graphics Editor
- SAS/GRAPH – new Procs
- Conclusion / Questions

## Universal Printing

- PNG (Portable Network Graphics)
- SVG (Scalable Vector Graphics)
- PDF/A (Archivable PDF documents)

## National Language Support

- Additional international informats and formats
- Linguistic collation for sorting

## Internet Protocol

- The new IPv6 is supported

## Key Highlights

### Performance

- Resume batch jobs exactly where they stopped
- Proc SQL has been optimized for queries to external DBMS

### Security

- The AES (Advanced Encryption Standard) is supported

### Diagnostics

- New SCAPROC Proc (SAS Code Analyzer)
- New JAVAINFO Proc

## Key Highlights

### User Defined Functions

- New PROTO Proc - create new functions in C, C++
- New FCMP Proc - create new functions in SAS

### ODS Statistical Graphics

- Now embedded in 50+ Procs
- ODS Graphics Editor - GUI

### SAS/Graph

- New Statistical Graphics (SG) Procedures
- Graph Template Language (GTL) to customize graphics

# 1 - Proc SORT

uppercase and lowercase letters are **sorted based on their internal storage representation**, NOT their position in the alphabet.

ASCII encoding: **uppercase Z precedes lowercase a**  
(Windows, UNIX)

 **Sorting mixed case will be problematic!**

**SAS 9.2 solution:** SORTSEQ = LINGUISTIC option

- Sorts based on the language rules for the current locale setting

# ASCII collating sequence

- UNIX, Windows & OpenVMS

- English-language ASCII sequence:

blank ! " # \$ % & ' ( ) \* + , - . / 0 1 2 3 4 5 6 7 8 9 :  
; < = > ? @ A B C D E F G H I J K L M N O P Q R  
S T U V W X Y Z [ \ ] ^ \_ a b c d e f g h i j k l m n o p  
q r s t u v w x y z { } ~

- Digits are sorted before uppercase letters  
Uppercase letters are sorted before lowercase

# Option STRENGTH=

- |           |           |       |
|-----------|-----------|-------|
| ■ Primary | “a” < “b” | order |
|-----------|-----------|-------|
  
- |             |                    |         |
|-------------|--------------------|---------|
| ■ Secondary | “as” < “às” < “at” | accents |
|-------------|--------------------|---------|
  
- |            |                    |           |
|------------|--------------------|-----------|
| ■ Tertiary | “ao” < “Ao” < “aò” | uppercase |
|------------|--------------------|-----------|
  
- |              |                     |             |
|--------------|---------------------|-------------|
| ■ Quaternary | “ab” < “a-b” < “aB” | punctuation |
|--------------|---------------------|-------------|
  
- |             |             |            |
|-------------|-------------|------------|
| ■ Identical | specialized | ex: Hebrew |
|-------------|-------------|------------|

## 2 - PDF Output

The PDF destination of ODS is great, but the documents it produces **aren't secured!**

### SAS 9.2 Solution: **New Systems Options**

- **PDFSECURITY**

  - encrypt your PDF output

  - two levels: 40-bit (low) and 128-bit (high)

- **PDFPASSWORD**

  - User password - used to open an encrypted PDF document

  - Owner password - used to validate the owner

## 3 - SAS/Graph

It's a tedious task to make **minor changes to the graphs!**

**SAS 9.2 solution: ODS Graphics Editor:**  
Interactive GUI to make changes easy

- No more complex coding with the Graph Template Language (GTL)
- Edit, add or delete title and footnotes
- Reposition the legends
- Customize the visual properties of plots and axes
- Add free-form annotation
- Save and export the graphic

## 4 – SAS/GRAPH : new Statistical Graphics Procs

ODS Statistical Graphics are nice but don't you wish you had more choices for **exploratory data analysis** and for producing **customized graphs** ?

### SAS 9.2 Solution: New SAS/GRAPH Procedures

- Proc SG PANEL
- Proc SGPLOT
- Proc SGSCATTER
- Proc SGRENDER

In summary,

- PDF Output
- Proc SORT
- ODS Graphics Editor
- SAS/GRAPH – new Procs

To learn more

## What's new SAS 9.2

<http://support.sas.com/documentation/whatsnew/index.html>

## SAS 9.2 Technical Documentation

<http://support.sas.com/cdlsearch?ct=80000>



## New Courses for SAS 9.2

<http://support.sas.com/training/canada/curric.html>

# Questions?



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Thanks!

Sylvain Tremblay  
[sylvain.tremblay@sas.com](mailto:sylvain.tremblay@sas.com)